
Sequence Listing was accepted.

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Reviewer: Anne Corrigan

Timestamp: [year=2010; month=5; day=13; hr=9; min=24; sec=47; ms=497;]

Validated By CRFValidator v 1.0.3

Application No: 10594291 Version No: 2.0

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Finished: 2010-05-07 10:39:52.191

Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 42 ms

Total Warnings: 0

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No. of SeqIDs Defined: 18

Actual SeqID Count: 18

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Asn Gly Arg Leu Ser Thr Val Gly Gly Val Thr Lys Lys Asn Asn Lys

125

120

115

Thr Ser Glu Thr Asn Thr Pro Leu Phe Val Asn Lys Val Asn Gly Glu 130 135 140

Ser Leu Lys Glu Leu Asp Phe Lys Ile Arg Gln Gln Leu Val Asn Asn 165 170 175

Tyr Gly Leu Tyr Lys Gly Thr Ser Lys Tyr Gly Lys Ile Ile Ile Asn 180 185 190

Leu Lys Asp Glu Asn Lys Val Glu Ile Asp Leu Gly Asp Lys Leu Gln
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<400> 2

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Lys Gln Glu Arg Val Gln His Leu His Asp Ile Arg Asp Leu His Arg 35 40 45

Tyr Tyr Ser Ser Glu Ser Phe Glu Tyr Ser Asn Val Ser Gly Lys Val 50 55 60

Glu Asn Tyr Asn Gly Ser Asn Val Val Arg Phe Asn Pro Lys Asp Gln
65 70 75 80

Asn His Gln Leu Phe Leu Leu Gly Lys Asp Lys Glu Gln Tyr Lys Glu 85 90 95 Gly Leu Gln Gly Gln Asn Val Phe Val Val Gln Glu Leu Ile Asp Pro 100 105 110 Asn Gly Arg Leu Ser Thr Val Gly Gly Val Thr Lys Lys Asn Asn Lys 115 120 Thr Ser Glu Thr Asn Thr Pro Leu Phe Val Asn Lys Val Asn Gly Glu 130 135 140 Asp Leu Asp Ala Ser Ile Asp Ser Phe Leu Ile Gln Lys Glu Glu Ile 145 150 155 160 Ser Leu Lys Glu Leu Asp Phe Lys Ile Arg Gln Gln Leu Val Asn Asn 170 165 175 Tyr Gly Leu Tyr Lys Gly Thr Ser Lys Tyr Gly Lys Ile Ile Ile Asn 180 185 190 Leu Lys Asp Glu Asn Lys Val Glu Ile Asp Leu Gly Asp Lys Leu Gln 195 200 205 Phe Glu Arg Met Gly Asp Val Leu Asn Ser Lys Asp Ile Arg Gly Ile 210 215 220 Ser Val Thr Ile Asn Gln Ile 225 230 <210> 3 <211> 231 <212> PRT <213> Staphylococcus aureus <400> 3 Met Lys Leu Lys Thr Leu Ala Lys Ala Thr Leu Ala Leu Gly Leu Leu 1 5 10 15 Thr Thr Gly Val Ile Thr Ser Glu Gly Gln Ala Val His Ala Lys Glu 25 20

Lys Gln Glu Arg Val Gln His Leu Tyr Asp Ile Lys Asp Leu Tyr Arg

45

40

35

Tyr Tyr Ser Ser Glu Ser Phe Glu Phe Ser Asn Ile Ser Gly Lys Val
50 55 60

Glu Asn Tyr Asn Gly Ser Asn Val Val Arg Phe Asn Gln Glu Lys Gln 65 70 75 80

Asn His Gln Leu Phe Leu Leu Gly Lys Asp Lys Asp Lys Tyr Lys Lys 85 90 95

Gly Leu Glu Gly Gln Asn Val Phe Val Val Lys Glu Leu Ile Asp Pro 100 105 110

Asn Gly Arg Leu Ser Thr Val Gly Gly Val Thr Lys Lys Asn Asn Lys 115 120 125

Ser Ser Glu Thr Asn Thr His Leu Phe Val Asn Lys Val Tyr Gly Gly 130 135 140

Ser Leu Lys Glu Leu Asp Phe Lys Ile Arg Lys Gln Leu Val Glu Lys
165 170 175

Tyr Gly Leu Tyr Lys Gly Thr Thr Lys Tyr Gly Lys Ile Thr Ile Asn 180 185 190

Leu Lys Asp Glu Lys Lys Glu Val Ile Asp Leu Gly Asp Lys Leu Gln
195 200 205

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Ala Val Thr Ile Asn Gln Ile 225 230

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<213> Staphylococcus aureus

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Lys Gln Gl 35	u Arg Val	Gln Glu	Leu Tyr 40	Asp Ile	Lys Asp 45	Leu Tyr	Arg
Tyr Tyr Se 50	r Ser Glu	Ser Phe 55	Glu Phe	Ser Asn	Ile Ser 60	Gly Lys	Val
Glu Asn Ty 65	r Asn Gly	Ser Asn 70	Val Val	Arg Phe 75	Asn Gln	Glu Lys	Gln 80
Asn His Gl	n Leu Phe 85	Leu Leu	Gly Lys	Asp Lys 90	Asp Lys	Tyr Lys 95	Lys
Gly Leu Gl	u Gly Gln 100	Asn Val	Phe Val	Val Lys	Glu Leu	Ile Asp	Pro
Asn Gly Ar 11		Thr Val	Gly Gly 120	Val Thr	Lys Lys 125	Asn Asn	Lys
Ser Ser Gl 130		135			140		-
Asn Leu As		150		155	_		160
Ser Leu Ly	165	-	-	170		175	-
Tyr Gly Le	180		185		-	190	
Leu Lys As	5		200		205		
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20 25 30

Lys Gln Glu Arg Val Gln His Leu Tyr Asp Ile Lys Asp Leu His Arg 35 40 45

Tyr Tyr Ser Ser Glu Ser Phe Glu Phe Ser Asn Ile Ser Gly Lys Val
50 55 60

Glu Asn Tyr Asn Gly Ser Asn Val Val Arg Phe Asn Gln Glu Asn Gln 65 70 75 80

Asn His Gln Leu Phe Leu Ser Gly Lys Asp Lys Asp Lys Tyr Lys Glu
85 90 95

Gly Leu Glu Gly Gln Asn Val Phe Val Val Lys Glu Leu Ile Asp Pro $100 \,$ $105 \,$ $110 \,$

Asn Gly Arg Leu Ser Thr Val Gly Gly Val Thr Lys Lys Asn Asn Gln 115 120 125

Ser Ser Glu Thr Asn Thr Pro Leu Phe Ile Lys Lys Val Tyr Gly Gly 130 135 140

Ser Leu Lys Glu Leu Asp Phe Lys Ile Arg Gln His Leu Val Lys Asn 165 170 175

Tyr Gly Leu Tyr Lys Gly Thr Thr Lys Tyr Gly Lys Ile Thr Phe Asn 180 185 190 Leu Lys Asp Gly Glu Lys Gln Glu Ile Asp Leu Gly Asp Lys Leu Gln 195 200 205

Phe Glu His Met Gly Asp Val Leu Asn Ser Lys Asp Ile Gln Asn Ile 210 215 220

Ala Val Thr Ile Asn Gln Ile 225 230

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<213> Staphylococcus aureus

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His Arg Tyr Tyr Ser Ser Glu Ser Phe Asp Phe Ser Asn Ile Ser Gly 20 25 30

Lys Val Glu Asn Tyr Asn Gly Ser Asn Val Val Arg Phe Asn Gln Asp 35 40 45

Gly Gln Asn His Gln Leu Phe Leu Leu Gly Glu Asp Lys Ala Lys Tyr 50 55 60

Lys Gln Gly Leu Glu Gly Gln Asn Val Phe Val Val Lys Glu Leu Ile 70 75 80

Asp Pro Asn Gly Arg Leu Ser Thr Val Gly Gly Val Thr Lys Lys Asn 85 90 95

Asn Gln Ser Ser Glu Thr Asn Thr Pro Leu Phe Val Lys Lys Val Tyr 100 105 110

Gly Gly Asn Leu Asp Ala Ser Ile Glu Ser Phe Ser Ile Asn Lys Glu 115 120 125

Glu Val Ser Leu Lys Glu Leu Asp Phe Lys Ile Arg Gln His Leu Val 130 135 140

Lys Asn Tyr Gly Leu Tyr Lys Gly Thr Thr Lys Tyr Gly Lys Ile Thr

145 150 155 160

Phe Asn Leu Lys Asp Gly Glu Lys Lys Glu Ile Asp Leu Gly Asp Lys
165 170 175

Leu Gln Phe Glu His Met Gly Asp Val Leu Asn Ser Lys Asp Ile Gln 180 185 190

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<210> 7

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<212> PRT

<213> Staphylococcus aureus

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His Arg Tyr Tyr Ser Ser Glu Ser Phe Glu Phe Ser Asn Ile Ser Gly
20 25 30

Lys Val Glu Asn Tyr Asn Gly Ser Asn Val Val Arg Phe Asn Gln Glu 35 40 45

Lys Gln Asn His Gln Leu Phe Leu Leu Gly Glu Asp Lys Ala Lys Tyr 50 60

Lys Gln Gly Leu Gln Gly Gln Asp Val Phe Val Val Lys Glu Leu Ile
65 70 75 80

Asp Pro Asn Gly Arg Leu Ser Thr Val Gly Gly Val Thr Lys Lys Asn \$85\$ 90 95

Asn Gln Ser Ser Glu Thr Asn Ile His Leu Leu Val Asn Lys Leu Asp 100 105 110

Gly Gly Asn Leu Asp Ala Thr Asn Asp Ser Phe Leu Ile Asn Lys Glu 115 120 125

Glu Val Ser Leu Lys Glu Leu Asp Phe Lys Ile Arg Lys Gln Leu Val 130 135 140 Glu Lys Tyr Gly Leu Tyr Gln Gly Thr Ser Lys Tyr Gly Lys Ile Thr 145 150 155 160

Ile Ile Leu Asn Gly Gly Lys Lys Gln Glu Ile Asp Leu Gly Asp Lys
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tatgatatta	aagacttata	tcgatactac	tcatcagaaa	gttttgaatt	cagtaatatt	180
agtggtaagg	ttgaaaacta	taacggttct	aacgttgtac	gctttaacca	agaaaaacaa	240
aatcaccaat	tattcttatt	aggaaaagat	aaagataaat	ataaaaaagg	ccttgaaggc	300
cagaatgtct	ttgtggtaaa	agaattaatt	gatccaaacg	gtagactatc	tactgttggt	360
ggtgtgacta	agaaaaataa	caaatcttct	gaaactaata	cacatttatt	tgttaataaa	420
gtgtatggcg	gaaatttaga	tgcatcaatt	gactcatttt	taattaataa	agaagaagtt	480
tcactgaaag	aacttgattt	caaaattaga	aagcaattag	ttgaaaaata	tggtttatat	540
aaaggtacga	ctaaatacgg	taagatcact	atcaatttga	aagacgagaa	aaaggaagta	600
attgatttag	gtgataaact	gcaattcgag	cgcatgggtg	atgtgttgaa	tagtaaggat	660
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<213> Staphylococcus aureus

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<210> 11

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<213> Staphylococcus aureus

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tatgatatta aagact	taca tcgatactac	tcatcagaaa	gttttgaatt	cagtaatatt	180	
agtggtaagg ttgaaa	atta taacggttct	aacgttgtac	gctttaacca	agaaaatcaa	240	
aatcaccaat tattct	tatc aggaaaagat	aaagataaat	ataaagaagg	ccttgaaggc	300	
cagaatgtet ttgtgg	taaa agaattaatt	gatccaaacg	gtagactatc	tactgttggt	360	
ggtgtaac						